=> d his

```
(FILE 'HOME' ENTERED AT 13:12:56 ON 26 DEC 2007)
     FILE 'REGISTRY' ENTERED AT 13:13:07 ON 26 DEC 2007
                SCREEN 2021 AND 1839 AND 1993
L1
L2
                STRUCTURE UPLOADED
L3
                QUE L2 AND L1
L4
             33 S L3
L5
                STRUCTURE UPLOADED
                QUE L5
L6
L7
              3 S L6
              0 S BENZO[C] THIOPHENE/CN
L8
L9
             1 S BENZOTHIOPHENE/CN
L10
             0 S BENZO[C] THIOPHENE/CN
Lll
             0 S BENZO THIOPHENE/CN
             0 S BENZO/CN AND THIOPHENE/CN
L12
L13
             0 S BENZO[B] THIOPHENE/CN
             0 S BENZOBTHIOPHENE/CN
L14
L15
             0 S BENZO[B] THIOPHENE/IN
             0 S BENZO[B] THIOPHENE/IN
L16
L17
             0 S "BENZO[B] THIOPHENE"/IN
             0 S "BENZO[B] THIOPHENE"/CN
L18
             0 S "BENZO[C] THIOPHENE"/CN
L19
             59 S C8H6S/MF
L20
L21
             30 S L20 AND BENZO
             37 S L20 AND THIOPHENE
L22
             29 S L21 AND THIOPHENE
L23
L24
             0 S L23 AND COM/CI
L25
           4367 S "BENZO[C] THIOPHENE"
L26
              0 S "BENZO[C] THIOPHENE"/CN
L27
              3 S L6
           2197 S L6 FULL
L28
         247152 S THIAZOLE
L29
L30
              1 S THIAZOLE/CN
              1 S BENZOTHIAZOLE/CN
L31
L32
              1 S ISOTHIAZOLE/CN
          97129 S 333.246.11/RID
L33
            708 S 333.94.7/RID
L34
         287013 S 16.299.11/RID
L35
         229721 S 333.521.14/RID
L36
L37
          15607 S 16.171.9/RID
L38
          38 S L33 AND L28
             0 S L34 AND L28
L39
             88 S L35 AND L28
L40
             22 S L36 AND L28
L41
              1 S L37 AND L28
L42
```

=> file caplus

L43

FILE 'CAPLUS' ENTERED AT 13:35:38 ON 26 DEC 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

149 S L38 OR L39 OR L40 OR L41 OR L42

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available

Print selected from 10597795.trn

for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 26 Dec 2007 VOL 147 ISS 26 FILE LAST UPDATED: 25 Dec 2007 (20071225/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 143

L44 31 L43

NSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN Document No. 144:170886 Preparation of dimeric compounds of piperidine, piperazine or morpholine or their 7-membered analogs suitable for the treatment of neurodegenerative disorders. Cik, Miroslav; Diels, Gaston Stanislas Marcella; Van Lommen, Guy Rosalia Eugeen (Janssen Pharmaceutica N.V., Belg.). PCT Int. Appl. WO 2006008259 Al 20060126, 51 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IS, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2005-EP53345 20050713. PRIORITY: US 2004-588446P 20040716; EP 2004-103413 20040716.

GI

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- AB Title compds. I [n = 1 or 2; m = 0-3; Z = CH, CH2, N, or 0; X = (un)substituted alkynyl, alkyl, etc.; R1 and R2 independently = H, alkyl, alkylcarbonyl, heterocycle, etc.; or R1 and R2 taken together form a (un)substituted heterocycle; R3 independently = H or alkoxyl, the N-oxide forms and the pharmaceutically acceptable addition salts, are prepared and disclosed as suitable for treatment of neurodegenerative disorders. Thus, e.g., II was prepared by deprotection of III (preparation given) followed by reaction with 1,4-dichloro-2-butyne. Neuron viability assays were conducted using calcein-AM, e.g., II was determined to possess a pIC50 value from 6-8. Pharmaceutical formulations are claimed.

IT 874535-94-1P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(preparation of dimeric compds. of piperidine, piperazine or morpholine or their 7-membered analogs suitable for treatment of neurodegenerative disorders)

RN 874535-94-1 CAPLUS

CN 4-Piperidinamine, 1,1'-(1,7-dioxo-1,7-heptanediyl)bis[N-(2-benzothiazolylmethyl)-N-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

IT 874536-37-5P 874536-38-6P 874536-48-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of dimeric compds. of piperidine, piperazine or morpholine or their 7-membered analogs suitable for treatment of neurodegenerative disorders)

RN 874536-37-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-benzothiazolylmethyl)methylamino]-, ethyl ester (CA INDEX NAME)

RN 874536-38-6 CAPLUS

CN 2-Benzothiazolemethanamine, N-methyl-N-4-piperidinyl-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

RN 874536-48-8 CAPLUS

CN 2-Benzothiazolemethanamine, N,4-dimethyl-N-4-piperidinyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

L44 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN Document No. 143:367217 Preparation of 4-aminopiperidine 2005:1075791 derivatives as monoamine uptake inhibitors. Boulet, Serge Louis; Clark, Barry Peter; Fairhurst, John; Gallagher, Peter Thaddeus; Johansson, Anette Margareta; Whatton, Maria Ann; Wood, Virginia Ann (Eli Lilly and Company, USA). PCT Int. Appl. WO 2005092885 A1 20051006, 119 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IS, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2005-US4174 20050211. PRIORITY: US 2004-548679P 20040227.

 R^{5} R^{1} R^{3} Het

GI

AB Title compds. I [n = 1-3; R1 = alkyl, alkenyl, cycloalkyl, etc.; R2-3 = H, alkyl; R4-5 = H, halo, OH, CN, etc.; Het = 5-6 membered monocyclic heteroarom. group, etc. with several exclusions] are prepared For instance, II is prepared in 3 steps from 1-(tert-butoxycarbonyl)-4-piperidinone, isobutylamine and the corresponding heterocyclic aldehyde which is isolated as the fumarate salt. I exhibit a Ki < 500 nM at one or more of the serotonin, norepinephrine and dopamine transporter proteins. I are useful in the treatment of disorders of the central and/or peripheral nervous system.

II

IT 866328-12-3P 866328-18-9P 866328-22-5P 866328-34-9P 866328-38-3P 866328-63-4P 866328-65-6P 866328-72-5P 866328-76-9P 866328-81-6P 866328-82-7P 866328-84-9P

Ι

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 4-aminopiperidine derivs. as serotonin, dopamine and/or

norepinephrine uptake inhibitors)

RN 866328-12-3 CAPLUS

CN 4-Piperidinamine, N-(benzo[b]thien-7-ylmethyl)-N-(2-methylpropyl)- (CA INDEX NAME)

RN 866328-18-9 CAPLUS

CN 2-Benzothiazolemethanamine, N-(2-methylpropyl)-N-4-piperidinyl- (CA INDEX NAME)

RN 866328-22-5 CAPLUS

CN 4-Piperidinamine, N-(benzo[b]thien-5-ylmethyl)-N-(2-methylpropyl)- (CA INDEX NAME)

RN 866328-34-9 CAPLUS

CN 4-Piperidinamine, N-(2-methylpropyl)-N-(4-thiazolylmethyl)- (CA INDEX NAME)

RN 866328-38-3 CAPLUS

CN 4-Piperidinamine, N-[(2,4-dichloro-5-thiazolyl)methyl]-N-(2-methylpropyl)-

(CA INDEX NAME)

RN 866328-63-4 CAPLUS
CN 4-Piperidinamine, N-[(2,4-dimethyl-5-thiazolyl)methyl]-N-(2-methylpropyl)(CA INDEX NAME)

RN 866328-65-6 CAPLUS
CN 4-Piperidinamine, N-[(4-chloro-2-methoxy-5-thiazolyl)methyl]-N-(2-methylpropyl)- (CA INDEX NAME)

RN 866328-72-5 CAPLUS

CN 4-Piperidinamine, N-(cyclopropylmethyl)-N-[(2,4-dimethyl-5-thiazolyl)methyl]- (CA INDEX NAME)

RN 866328-76-9 CAPLUS

CN 4-Piperidinamine, N-[(4-chloro-2-methoxy-5-thiazolyl)methyl]-N-(cyclopropylmethyl)- (CA INDEX NAME)

RN 866328-81-6 CAPLUS

CN 4-Piperidinamine, N-(3-methylbutyl)-N-(2-thiazolylmethyl)- (CA INDEX NAME)

$$\begin{array}{c|c} \text{CH}_2\text{-}\text{CH}_2\text{-}\text{CHMe}_2\\ \hline \\ \text{NH}\\ \hline \\ \text{S} \end{array}$$

RN 866328-82-7 CAPLUS

CN 4-Piperidinamine, N-[(4-chloro-5-thiazolyl)methyl]-N-(2-methylpropyl)(CA INDEX NAME)

RN 866328-84-9 CAPLUS
CN 2-Propanol, 1-[[(2,4-dichloro-5-thiazolyl)methyl]-4-piperidinylamino]-2methyl- (CA INDEX NAME)

```
866327-99-3P 866328-01-0P 866328-13-4P
IT
     866328-19-0P 866328-23-6P 866328-24-7P
     866328-35-0P 866328-39-4P 866328-51-0P
     866328-64-5P 866328-66-7P 866328-68-9P
     866328-69-0P 866328-75-8P 866328-77-0P
     866328-80-5P 866328-83-8P 866328-85-0P
     866329-20-6P 866330-65-6P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (preparation of 4-aminopiperidine derivs. as serotonin, dopamine and/or
        norepinephrine uptake inhibitors)
RN
     866327-99-3 CAPLUS
     4-Piperidinamine, N-[(3-methylbenzo[b]thien-2-yl)methyl]-N-(2-
CN
     methylpropyl)-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)
     CM
          1
     CRN 866327-98-2
```

CMF C19 H28 N2 S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 866328-01-0 CAPLUS

CN 4-Piperidinamine, N-(benzo[b]thien-3-ylmethyl)-N-(2-methylpropyl)-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-00-9 CMF C18 H26 N2 S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 866328-13-4 CAPLUS

CN 4-Piperidinamine, N-(benzo[b]thien-7-ylmethyl)-N-(2-methylpropyl)-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-12-3 CMF C18 H26 N2 S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 866328-19-0 CAPLUS

CN 2-Benzothiazolemethanamine, N-(2-methylpropyl)-N-4-piperidinyl-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-18-9 CMF C17 H25 N3 S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 866328-23-6 CAPLUS
CN 4-Piperidinamine, N-(benzo[b]thien-5-ylmethyl)-N-(2-methylpropyl)-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-22-5 CMF C18 H26 N2 S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 866328-24-7 CAPLUS

CN 4-Piperidinamine, N-(benzo[b]thien-5-ylmethyl)-N-(2-methylpropyl)-, (2R,3R)-2,3-dihydroxybutanedioate (2:1) (CA INDEX NAME)

CM 1

CRN 866328-22-5 CMF C18 H26 N2 S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866328-35-0 CAPLUS

CN 4-Piperidinamine, N-(2-methylpropyl)-N-(4-thiazolylmethyl)-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-34-9 CMF C13 H23 N3 S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 866328-39-4 CAPLUS

CN 4-Piperidinamine, N-[(2,4-dichloro-5-thiazolyl)methyl]-N-(2-methylpropyl)-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-38-3 CMF C13 H21 Cl2 N3 S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 866328-51-0 CAPLUS

CN 4-Piperidinamine, N-[(3-chlorobenzo[b]thien-2-yl)methyl]-N-(2-methylpropyl)-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-50-9 CMF C18 H25 Cl N2 S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 866328-64-5 CAPLUS

CN 4-Piperidinamine, N-[(2,4-dimethyl-5-thiazolyl)methyl]-N-(2-methylpropyl)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-63-4 CMF C15 H27 N3 S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866328-66-7 CAPLUS

CN 4-Piperidinamine, N-[(4-chloro-2-methoxy-5-thiazolyl)methyl]-N-(2-methylpropyl)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-65-6 CMF C14 H24 Cl N3 O S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866328-68-9 CAPLUS

CN 4-Piperidinamine, N-[(4-chloro-2-methyl-5-thiazolyl)methyl]-N-(2-methylpropyl)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-67-8 CMF C14 H24 C1 N3 S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866328-69-0 CAPLUS

CN 4-Piperidinamine, N-[(2,4-dichloro-5-thiazolyl)methyl]-N-(2-methylpropyl)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-38-3 CMF C13 H21 Cl2 N3 S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866328-75-8 CAPLUS

CN 4-Piperidinamine, N-[(4-chloro-2-methyl-5-thiazolyl)methyl]-N-(cyclopropylmethyl)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-74-7 CMF C14 H22 Cl N3 S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866328-77-0 CAPLUS

CN 4-Piperidinamine, N-[(4-chloro-2-methoxy-5-thiazolyl)methyl]-N-(cyclopropylmethyl)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-76-9 CMF C14 H22 Cl N3 O S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866328-80-5 CAPLUS CN 4-Piperidinamine, N-(3-methylbutyl)-N-(2-thiazolylmethyl)-,

dihydrochloride (9CI) (CA INDEX NAME)

$$CH_2-CH_2-CHMe_2$$
 NH
 S

•2 HCl

CM 1

CRN 866328-82-7 CMF C13 H22 Cl N3 S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866328-85-0 CAPLUS

CN 2-Propanol, 1-[[(2,4-dichloro-5-thiazolyl)methyl]-4-piperidinylamino]-2-methyl-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX

NAME)

CM 1

CRN 866328-84-9

CMF C13 H21 C12 N3 O S

C1
$$\sim$$
 C1 \sim C1 \sim CH2 OH \sim N-CH2-C-Me \sim Me

CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.

RN 866329-20-6 CAPLUS

CN 4-Piperidinamine, N-(cyclopropylmethyl)-N-[(2,4-dimethyl-5-thiazolyl)methyl]-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 866328-72-5 CMF C15 H25 N3 S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 866330-65-6 CAPLUS
CN 4-Piperidinamine, N-[(2,4-dichloro-5-thiazolyl)methyl]-N-(2-methylpropyl), (2R,3R)-2,3-dihydroxybutanedioate (1:1), hydrate (9CI) (CA INDEX NAME)

CM 1

CRN 866328-38-3 CMF C13 H21 C12 N3 S

CM 2

CRN 87-69-4

CMF C4 H6 O6

Absolute stereochemistry.

IT 866329-21-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of 4-aminopiperidine derivs. as serotonin, dopamine and/or
 norepinephrine uptake inhibitors)

RN 866329-21-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-chloro-2-methyl-5-thiazolyl)methyl]amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

```
IT
     866328-74-7P 866328-87-2P 866328-89-4P
     866328-90-7P 866328-93-0P 866328-94-1P
     866329-01-3P 866329-02-4P 866329-05-7P
     866329-06-8P 866329-10-4P 866329-11-5P
     866329-12-6P 866329-13-7P 866329-15-9P
     866329-16-0P 866329-17-1P 866329-18-2P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of 4-aminopiperidine derivs. as serotonin, dopamine and/or
        norepinephrine uptake inhibitors)
     866328-74-7 CAPLUS
RN
     4-Piperidinamine, N-[(4-chloro-2-methyl-5-thiazolyl)methyl]-N-
CN
     (cyclopropylmethyl) - (CA INDEX NAME)
```

RN 866328-87-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(benzo[b]thien-7-ylmethyl)(2-methylpropyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866328-89-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-benzothiazolylmethyl)(2-methylpropyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866328-90-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(benzo[b]thien-5-ylmethyl)(2-methylpropyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866328-93-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-methylpropyl)(4-thiazolylmethyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866328-94-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2,4-dichloro-5-thiazolyl)methyl](2-methylpropyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-01-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2,4-dimethyl-5-thiazolyl)methyl]amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-02-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2,4-dimethyl-5-thiazolyl)methyl](2-methylpropyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-05-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-chloro-2-methoxy-5-thiazolyl)methyl]amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-06-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-chloro-2-methoxy-5-thiazolyl)methyl](2-methylpropyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-10-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2,4-dichloro-5-thiazolyl)methyl]amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-11-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(cyclopropylmethyl) [(2,4-dimethyl-5-thiazolyl)methyl]amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-12-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-chloro-2-methyl-5-thiazolyl)methyl](cyclopropylmethyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-13-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-chloro-2-methoxy-5-

thiazolyl)methyl](cyclopropylmethyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-15-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-methylbutyl)(2-thiazolylmethyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2 & \text{O} \\ \parallel & \text{C}-\text{OBu-t} \\ \hline & \text{N} & \text{CH}_2-\text{N} \end{array}$$

RN 866329-16-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-chloro-5-thiazolyl)methyl]amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-17-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-chloro-5-thiazolyl)methyl](2-methylpropyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

RN 866329-18-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2,4-dichloro-5-thiazolyl)methyl](2-hydroxy-2-methylpropyl)amino]-, 1,1-dimethylethyl ester (CA INDEX NAME)

C1
$$\sim$$
 C1 \sim CH2 OH \sim N-CH2-C-Me \sim Me \sim Me \sim C-OBu-t \sim O

19 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
2003:44146 Document No. 138:73178 Preparation and pharmaceutical
combinations of [(hetero)arylalkyl]piperidinyl amine, amide, or carbamate
CCR3 antagonists for treatment of asthma, allergic disease, or
inflammation. Bahl, Ash; Perry, Matthew; Springthorpe, Brian (Astrazeneca
AB, Swed.). Brit. UK Pat. Appl. GB 2373186 A 20020918, 91 pp.
(English). CODEN: BAXXDU. APPLICATION: GB 2001-4534 20010223.

GI

$$x^2-x^1$$
 x^2-x^1
 x^2-x^2
 x^2-x^2
 x^2-x^4

Title compds. I [wherein Z = CR4R5, CO, or CR4R5Z1; Z1 = alkylene, AB alkenylene, or CONH; R1 = (un)substituted alkyl, alkenyl, (hetero)cycloalkyl, or (hetero)aryl; Q = O, S, NR9, CO, CONR9, NR9CO, or CH=CH; m = 0-1; n = 0-6 with the proviso that when n = 0; then m = 0; R2and R3 = independently H or alkyl; or CR2R3 = (alkyl)cycloalkyl; T = NR10, CONR10, NR11CONR10, or CONR10R11; X1-X4 = independently CH2CHR12 or CO; R4 and R5 = independently H or alkyl; R6 = (un)substituted (hetero)aryl; R9-R11 = independently H, alkyl, haloalkyl, hydroxyalkyl, cycloalkyl(alkyl), or phenylalkyl; R12 = independently (cyclo)alkyl or CO; or R12 groups of X1 and X3 or X4, or X2 and X3 or X4 join to form CH2CH2, CH2CH2CH2, CH2OCH2, or CH2SCH2; or pharmaceutically acceptable salts or solvates thereof] were prepared as cysteine-cysteine chemokine receptor 3 (CCR3) antagonists for use in pharmaceutical combinations with a histamine antagonist, steroid, leukotriene modulator, human cytokine, β-agonist, phosphodiesterase inhibitor, or antibody (no data). example, 1-(3,4-dichlorobenzyl)-4-piperidinamine • 2CF3CO2H was condensed with 2-(4-fluorophenyl)acetic acid to give N-[1-(3,4dichlorobenzyl)-4-piperidinyl]-2-(4-fluorophenyl)acetamide (II). I are useful in combination therapy for the treatment of asthma, rhinitis, and other allergic or inflammatory conditions (no data). 328082-17-3, N-[1-(3,4-Dichlorobenzyl)-4-piperidinyl]-N-(1,3-1) IT

thiazol-2-ylmethyl)amine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(CCR3 antagonist; preparation and pharmaceutical combinations of

[(hetero)arylalkyl]piperidinyl amine, amide, or carbamate CCR3 antagonists for treatment of asthma, allergic disease, or inflammation) 328082-17-3 CAPLUS

4-Piperidinamine, 1-[(3,4-dichlorophenyl)methyl]-N-(2-thiazolylmethyl)-(CA INDEX NAME)

CAPLUS COPYRIGHT 2007 ACS on STN

2002:90042 Document No. 136:151082 Preparation of aminopiperidine quinolines and their azaisosteric analogs having antibacterial activity. Davies, David Thomas; Jones, Graham Elgin; Lightfoot, Andrew P.; Markwell, Roger

RN

CN

Edward; Pearson, Neil David (Smithkline Beecham P.L.C., UK). PCT Int. Appl. WO 2002008224 A1 20020131, 80 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-EP8604 20010725. PRIORITY: GB 2000-18351 20000726; GB 2001-1629 20010122.

GI

dioxalate

I

Aminopiperidine quinoline compds. I (Z1-Z5 = one is N, one (or two AB independently are) CR1a and the remainder are CH; R1 and R1a = independently are H, OH, NH2, CONH2, halogen, (un) substituted S and SO2,

(un) substituted alkyl and alkoxy, etc.; R2 = H, (un) substituted alkyl or alkenyl; R3 = H, CO2H, (un) substituted amino, etc.; R4 = CO, SO2, CH2 attached to an optionally substituted bicyclic, carbocyclic or heterocyclic ring system; n = 0-1; AB = substituted N or C), their salts and pharmaceutically acceptable derivs. were prepared and found to be useful in treating bacterial infections in mammals, especially humans. Thus II was prepared from 4-amino-1-[2-(R)-hydroxy-2-(6-methoxyquinolin-4yl)]ethylpiperidine and 5-bromo-1H-indole-2-carboxaldehyde and was determined

to have an MIC less than or equal to 32µg/mL against one or more of gram pos. and neg. bacteria such as S. aureus Oxford and WCUH29 and S.

pneumoniae 1629, N1387 and ERY 2.

394222-69-6P 394223-24-6P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of aminopiperidine quinolines and their azaisosteric analogs having antibacterial activity)

RN 394222-69-6 CAPLUS

IT

CN 4-Quinolinemethanol, α-[[4-[[(3-chlorobenzo[b]thien-2yl)methyl]amino]-1-piperidinyl]methyl]-6-methoxy-, (αR)- (CA INDEX NAME)

Absolute stereochemistry.

RN 394223-24-6 CAPLUS

CN 4-Quinolinemethanol, α -[[4-[(2-benzothiazolylmethyl)amino]-1-piperidinyl]methyl]-6-methoxy-, (α R)- (CA INDEX NAME)

Absolute stereochemistry.

ethanedioate (1:2) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 394222-69-6 CMF C26 H28 C1 N3 O2 S

Absolute stereochemistry.

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 394222-88-9 CAPLUS

CN 4-Quinolinemethanol, 6-methoxy- α -[[4-[[(6-methoxy-2-benzothiazolyl)methyl]amino]-1-piperidinyl]methyl]-, (α R)-, ethanedioate (1:2) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 394222-87-8 CMF C26 H30 N4 O3 S

Absolute stereochemistry.

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 394223-25-7 CAPLUS

CN 4-Quinolinemethanol, α -[[4-[(2-benzothiazolylmethyl)amino]-1-piperidinyl]methyl]-6-methoxy-, (α R)-, ethanedioate (1:2) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 394223-24-6 CMF C25 H28 N4 O2 S

Absolute stereochemistry.

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 394223-39-3 CAPLUS

CN 4-Quinolinemethanol, α -[[4-[(5-benzothiazolylmethyl)amino]-1-piperidinyl]methyl]-6-methoxy-, (α R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 394223-85-9 CAPLUS CN 1,5-Naphthyridine-4-methanol, α -[[4-[[(4,6-difluoro-2-benzothiazolyl)methyl]amino]-1-piperidinyl]methyl]-6-methoxy-, (α R)- (CA INDEX NAME)

Absolute stereochemistry.

L44 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN

2001:152644 Document No. 134:207822 Preparation of substituted piperidines as modulators of chemokine receptor activity. Thom, Stephen; Baxter, Andrew; Kindon, Nicholas; McInally, Thomas; Springthorpe, Brian; Perry, Matthew; Harden, David; Evans, Richard; Marriott, David (Astrazeneca UK Limited, UK). PCT Int. Appl. WO 2001014333 Al 20010301, 133 pp.

DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-GB3179 20000818.

PRIORITY: SE 1999-2987 19990824.

GI

$$R^{1}-[Q]_{m}[CR^{2}R^{3}]_{n}T$$
 $X^{2}-X^{1}$ $N-Z-R^{6}$ $X^{3}-X^{4}$

The title compds. [I; Z = CR4R5, CO, CR4R5Z1; Z1 = alkylene, alkenylene, AΒ CONH; R1 = (un) substituted alkyl, alkenyl, 3-14 membered (un) saturated ring system which optionally further comprises up to two ring carbon atoms that form carbonyl groups and which optionally further comprises up to 4 ring heteroatoms selected from N, O, and S; m = 0-1; Q = O, S, CO, etc.; n = 00-6 (when n = 0, then m = 0); R2, R3 = H, alkyl; (CR2R3)n = cycloalkyl optionally substituted by alkyl; T = NR10, CONR10, NR11CONR10, etc.; X1-X4 = CH2, CHR12 (wherein R12 = alkyl, cycloalkyl(alkyl), CO, etc.); R4, R5 = H, alkyl; R6 = (un) substituted aryl, heterocyclyl; R10-R11 = H, alkyl, haloalkyl, etc.] and their pharmaceutically acceptable salts, useful in therapy, especially for the treatment of chemokine receptor related diseases (such as inflammatory disease) and conditions, were prepared E.g., a 3-step synthesis of the piperidine II was given. The exemplified compds. I were found to be antagonists of the eotaxin mediated [Ca2+]i in human eosinophils and/or antagonists of the MIP- 1α mediated [Ca2+]i in human monocytes (no data). Certain compds. I were found to be antagonists of the eotaxin mediated human eosinophil chemotaxis (no data).

IT 328082-17-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted piperidines as modulators of chemokine receptor activity)

RN 328082-17-3 CAPLUS

CN 4-Piperidinamine, 1-[(3,4-dichlorophenyl)methyl]-N-(2-thiazolylmethyl)-(CA INDEX NAME)

27 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN 1993:671005 Document No. 119:271005 Preparation of 1-acylpiperidine

derivatives and their use as substance P antagonists. Schilling, Walter; Ofner, Silvio; Veenstra, Siem J. (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 532456 Al 19930317, 108 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1992-810594 19920804. PRIORITY: CH 1991-2374 19910812.

GI

AB Title compds. [I; R1 = (substituted) aralkyl, aryloxyalkyl, aroyl, arylcarbamoyl, heteroaroyl, cycloalkylcarbonyl, aralkanoyl, aralkoxycarbonyl, α-araminoacid ocyl residue, etc.; R2 = cycloalkyl, (substituted) (hetero)aryl; R3 = H, alkyl carbamoyl, (substituted) alkanoyl, alkenoyl; (R4 = (substituted) aryl, (partially hydrogenated) heteroaryl; X1 = (H2, CH2CH2, bond, (ketalized) CO, (etherified) HOCH; X2 = alklylene, CO, bond; X3 = CO, oxoalkylene, oxoazaalkylene, hydroxyalkylene, etc.], were prepared Thus, Et (R)-3-amino-4-phenylbutyrate was converted to (2R, 4RS)-2-benzyl-1-(3,5-dimethylbenzoyl)-4-piperidineamine in several steps and the latter was stirred with PhCH2CHO, NaOAc, HOAc, and NaBH3CN in MeOH to give title compound II and its diastereomer. I inhibited substance P-induced blood vessel dilation in guinea pig ears beginning at 0.01 mg/kg i.v.

IT 150708-13-7P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
 BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of, as substance P antagonist)

RN 150708-13-7 CAPLUS

CN 4-Piperidinamine, 1-(3,5-dichlorobenzoyl)-N-[(3-methylbenzo[b]thien-2-yl)methyl]-2-(phenylmethyl)-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L44 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN

1992:400899 Document No. 117:899 Use of triazine and pyrimidine derivatives to decrease resistance to anticancer and antimalarial agents. Paramelle, Bernard; Leverve, Xavier; Regnier, Gilbert; Dhainaut, Alain; Atassi, Ghanem; Pierre, Alain (Adir et Cie., Fr.). Eur. Pat. Appl. EP 478416 Al 19920401, 18 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE. (French). CODEN: EPXXDW. APPLICATION: EP 1991-402472 19910918. PRIORITY: FR 1990-11887 19900927.

GI

Triazine and pyrimidine derivs. [I; A = CH, N; R1, R2 = C3-5 hydrocarbyl; B = NR4(CH2)mNR4; R3=(halo)diphenylmethyl, PhCH:CHCH2, etc.; R4 = H, C1-5 alkyl; m = 2-6) and their acid addition salts are used in pharmaceuticals for decreasing drug resistance to anticancer and antimalarial drugs. Thus, 1-(4,6-bisallylamino-1,3,5-triazin-2-yl)-4-(p-fluorobenzhydryl)piperazine methanesulfonate, at 20 μ M, decreased murine leukemia cell line resistance to adriamycin, 144 times. A capsule contained I 200, maize starch 50, lactose 100, and talc 30mg.

IT 88535-84-6

RL: BIOL (Biological study)

(pharmaceutical composition containing, for decrease of anticancer and antimalarial drug resistance)

RN 88535-84-6 CAPLUS

CN 1,3,5-Triazine-2,4-diamine, 6-[4-[(benzo[b]thien-2-ylmethyl)amino]-1-piperidinyl]-N,N'-di-2-propenyl-, (2E)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 88535-83-5 CMF C23 H29 N7 S

S
$$CH_2-NH$$
 $NH-CH_2-CH=CH_2$ $NH-CH_2-CH=CH_2$ $NH-CH_2-CH=CH_2$

CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

Document No. 106:50191 Benzoxazol- and benzothiazolamine derivatives. Stokbroekx, Raymond Antoine; Luyckx, Marcel Gerebernus Maria; Janssens, Frans Eduard (Janssen Pharmaceutica N. V., Belg.). Eur. Pat. Appl. EP 184257 A1 19860611, 82 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1985-201937 19851122. PRIORITY: US 1984-677412 19841203.

$$R^3$$
 $(CH_2)_n$
 R^1N
 R^2
 R^4
 NR^5
 Z^1
 Z^2
 Z^3
 Z^4
 Z^5
 Z^4
 Z^5
 Z^4
 Z^5
 Z^4

Title compds. I (R1 = alkyl, arylalkenyl, cycloalkyl, substituted alkyl, cycloalkyl, hydroxyalkyl, alkylcarbonyloxyalkyl; R2 = R3 = H, or R2R3 = CH2CH2; R4 = H, alkyl, OH, alkoxy, CF3; R5 = H, alkyl, arylalkyl; n = 0,1; Z1 = 0,S; Z2 = Z3 = Z4 = Z5 = CH, or one of Z2, Z3, Z4, and Z5 is N and the others are CH) were prepared, and they exhibited antianoxic activity. II (R6 = H) (preparation given) was treated with 3-ClC6H4O(CH2)4Cl and Na2CO3 in DMF to give II [R6 = 3-ClC6H4O(CH2)4] (III). III had an ED50 of 5 mg/kg s.c. in male rats for preventing death due to KCN-induced histotoxic anoxia. Capsules were formulated containing I 20, Na lauryl sulfate 6, starch 56, lactose 56, colloidal SiO2 0.8, and Mg stearate 1.2 mg.

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as anti-anoxic agent)

RN 106185-76-6 CAPLUS

CN 1-Piperidineethanol, 4-[(2-benzothiazolylmethyl)amino]- α -[(4-fluorophenoxy)methyl]-, acetate (ester) (9CI) (CA INDEX NAME)